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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

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GROUP 1700

Application Number: 10/630,501
Filing Date: July 30, 2003
Appellant(s): TURNER ET AL.

Fish & Richardson P.C.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/12/07 appealing from the Office action mailed 08/17/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|--------------|----------------|---------|
| JP 08-50922 | KAWAKAMI et al | 02-1996 |
| 6,051,340 | KAWAKAMI et al | 04-2000 |
| JP 06-325764 | ITO et al | 11-1994 |

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| | | |
|--------------|----------------|---------|
| JP 10-294112 | NAKAJIMA et al | 11-1998 |
| JP 10-223221 | MIYAKE et al | 08-1998 |
| EP 0209402 | JEFFREY et al | 01-1987 |
| EP 0750359 | KYOKO et al | 12-1996 |
| WO 99/49532 | TURNER et al | 09-1999 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-10 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Publication 08-50922 (herein called the JP'922 or Kawakami et al). (*For purposes of rejection, US 6051340 to Kawakami et al, which belongs to the same patent family, is being cited hereinbelow as it was published in English language*).

As to claim 1:

Kawakami et al disclose an anode for a rechargeable lithium battery comprising an electrode component comprising a first metal incapable of being alloyed with Li which is generated upon operating charging; and a layer comprising said first metal and a second metal

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capable of being alloyed with Li (CLAIM 14). Kawakami et al disclose the charging operation of the rechargeable lithium battery (ABSTRACT).

Kawakami et al teach that the first metal is selected from the group consisting of at least Ni, Fe, Cu, Mo, W, among others (CLAIM 14). Said second metal is selected from the group consisting of at least Al, Mg, Si, Ge, Sb, Pb, In and Zn, among others (CLAIM 14/ COL 13, lines 35-45). In addition to that, Kawakami et al uses a layer comprising one or more materials selected from the group consisting of Sn-Bi alloy; Sn-Pb alloy, Zn-Al alloy, Cu-Zn alloy, Cd-Zn alloy (CLAIM 23/ COL 13, lines 35-45). *Thus, Kawakami et al readily envision combinations of these metals, that is, either single combination or a collective combination.*

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2-5:

As seen above, Kawakami et al uses first metals selected from the group consisting of at least Ni, Fe, Cu, Mo, W, among others (CLAIM 14); and second metals selected from the group consisting of at least Al, Mg, Si, Ge, Sb, Pb, In and Zn, among others (CLAIM 14).

As to claim 6-10:

Kawakami et al directly use Al and/or Si (CLAIM 14); and/or Sn (CLAIM 23).

As to claims 15-16:

Kawakami et al describe the formation of a layer and/or a powdery material (CLAIM 14/ COL 12, lines 22-27/ FIGURES 4a-c).

As to claim 17:

Disclosed is the lithium rechargeable battery comprising a pair of electrodes including the specifically claimed electrode and the electrolyte separating the electrodes (ABSTRACT/ CLAIM 1/ COL 17, lines 52-65/ COL 18, lines 13-18).

Thus, the present claims are anticipated.

3. Claims 1, 3-7, 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 06-325764 (hereinafter referred to as the JP'764).

As to claims 1 and 17:

The JP'764 discloses a non-aqueous electrolyte secondary cell comprising a positive electrode and a negative electrode separated by electrolyte serving as separator 3. Further disclosed is that the negative electrode is constituted as a metallic alloy of Al, Si and Fe, thereby making available Li for participation in the reaction through occlusion/discharge (ABSTRACT).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 3-5:

The JP'764 employs a metallic alloy of Al, Si and Fe as the negative electrode (ABSTRACT).

As to claims 6-7 and 9:

Specifically, the JP'764 employs a metallic alloy of Al, Si as part of the negative electrode (ABSTRACT).

As a result, the present claims are anticipated.

4. Claims 1, 4-5, 7 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 10-294112 (hereinafter referred to as the JP'112).

As to claims 1 and 17:

The JP'112 reveals a lithium secondary battery including a separator disposed between an anode pole and a cathode (ABSTRACT) wherein the anode pole contains a lithium oxide; and the cathode active material composition expressed by the formula M_{100-x}Si_x where M is an element chosen from Ni, Fe, Co and Mn (ABSTRACT). The JP'112 is concerned with charging and discharging of the battery (ABSTRACT).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 4-5:

The JP'112 employs a metallic alloy of Al, Si and Fe as the negative electrode (ABSTRACT).

As to claim 7:

Specifically, the JP'112 employs Si as part of the cathode (ABSTRACT).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

Consequently, the present claims are anticipated.

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5. Claims 1-10 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication 10-223221 (hereinafter referred to as the JP'221).

As to claims 1 and 17:

The JP'221 discloses a secondary battery having a cathode and an anode whose active material; occludes and releases Li-ion (ABSTRACT). *Thus, the JP'221 is related to a Li-ion battery.* Further disclosed is that the cathode active material comprises an inter-metallic compound with one or more kinds of element chosen from Al, Ge, Pb, Si, Zn, Sn and other metals (ABSTRACT). Other metals include Fe, Ni, Cu (TABLE on Page 6) and Mn, Mo as well (P. 0010-0012). The combination also includes the use of single or plural combinations of these metals (P. 0010-0012). The JP'221 describes the impact of using these materials with respect to the discharge/charge characteristics of the battery (ABSTRACT).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2-5:

The JP'221 discloses that it is known to use element chosen from Al, Ge, Pb, Si, Zn, Sn and other metals (ABSTRACT). Other metals include Fe, Ni, Cu (TABLE on Page 6) and Mn, Mo as well (P. 0010-0012). The combination also includes the use of single or plural combinations of these metals (P. 0010-0012).

As to claims 6-10:

Specifically, the JP'221 employs a metallic alloy of Al, Si and/or Sn as part of the electrode material (ABSTRACT).

Accordingly, the present claims are anticipated.

6. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by the European Publication 0209402 (hereinafter referred to as the EP'402).

As to claims 1:

The EP'402 discloses an Al-anode alloy (TITLE) consisting essentially of specific weight percents of In, Mn and Mg and the balance being Al (ABSTRACT). The alloy may also contain Fe (TABLES 1 and 3/ABSTRACT). It is particularly useful as a battery anode (ABSTRACT). The EP'402 also uses Si and tin (COL 2, lines 35-48/ TABLE 1); and Zn (TAGLE 1) and Mn (TABLE 3).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2-5:

The anode alloy contains Al, In, Mn and Mg and the balance being Al (ABSTRACT); and also contain Fe (ABSTRACT). The EP'402 also uses Si and tin (COL 2, lines 35-48/ TABLE 1 and 3); and Zn (TAGLE 1) and Mn (TABLE 3).

As to claims 6-10:

Specifically, EP'402 employs Al, Si and tin as part of the electrode material (ABSTRACT/ COL 2, lines 35-48/TABLE 1 and 3).

Hence, the present claims are anticipated.

7. Claims 1-6, 8 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the European Publication 0750359 (hereinafter referred to as the EP'359).

As to claims 1 and 17:

The EP'359 discloses a secondary battery comprising a pair of electrodes and a separator disposed between the pair of electrodes (TITLE/ABSTRACT/ FIGURE 3) wherein the negative electrode contains particles composed of material contributing a charge-discharge reaction, and the particles comprises at least two phases (ABSTRACT). The Li-battery is also taught (Page 2, lines 21-24).

As for the negative electrode material, an alloy composed of components Ni combined with at least one of element selected from the group consisting of Mg (Page 6, lines 29-31) and/or an alloy composed of components of the above alloy combined with at least one of element selected from the group consisting of Al, Mn, tin, Mo, W, Pb, Fe (Page 6, lines 32-35). The electrode material can include an alloy comprising Ni-Mn-Al or Ni-Mn-Al-W or Ni-Mn-Al-Mo (Page 6, lines 37-43).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2-5:

As for the negative electrode material, an alloy composed of components Ni combined with at least one of element selected from the group consisting of Mg (Page 6, lines 29-31) and/or an alloy composed of components of the above alloy combined with at least one of element selected from the group consisting of Al, Mn, tin, Mo, W, Pb, Fe (Page 6, lines 32-35).

The electrode material can include an alloy comprising Ni-Mn-Al or Ni-Mn-Al-W or Ni-Mn-Al-Mo (Page 6, lines 37-43).

As to claims 6 and 8:

Specifically, EP'359 employs Al and tin as part of the electrode material (Page 6, lines 32-43).

For this reason, the present claims are anticipated.

8. Claims 1-2, 4-5, 8 and 15-17 are rejected under 35 U.S.C. 102(a) as being anticipated by the WO publication WO 99/49532 (hereinafter referred to as the WO'532).

As to claims 1 and 17:

The WO'532 discloses a tin alloy electrode composition for Li-batteries (TITLE) wherein the electrode composition includes: a) an electrochemically active metal element which, prior to cycling, is in the form of an intermetallic compound or an elemental metal and (b) a non-electrochemically active metal element (ABSTRACT). The electrode compositions have high initial capacities that are retained even after repeated cycling (ABSTRACT). The cathode, the anode and the electrolyte are taught (Page 7, lines 5-16).

The electrochemically active element is tin (Page 5, lines 8-10). The non-electrochemically active metal element are Mo, Nb, W, Ta, Fe, Cu, and combination thereof (Page 5, lines 9-13). They may be present in the form of single element metals, intermetallic compounds featuring the metal combined (Page 5, lines 10-18).

Examiner's note: accordingly, products of identical chemical composition can not have mutually exclusive properties, and thus, the claimed characteristic (i.e. remaining an amorphous mixture), is necessarily present in the prior art material.

As to claims 2 and 4-5:

The electrochemically active element is tin (Page 5, lines 8-10). The non-electrochemically active metal element are Mo, Nb, W, Ta, Fe, Cu, and combination thereof (Page 5, lines 9-13). They may be present in the form of single element metals, intermetallic compounds featuring the metal combined (Page 5, lines 10-18).

As to claim 8:

Specifically, WO'532 employs tin as part of the electrode material (Page 5, lines 8-10).

As to claims 15-16:

The electrode composition is in the form of layer/film or powder (Page 2, line 30/ Page 3, line 11-13/Page 7, lines 3-5, lines 20-28).

Thus, the present claims are anticipated.

(10) Response to Argument

Care has been taken to examine and review all of the arguments raised by the Appellant in the Brief of Appeal dated 07/12/07. Nonetheless, applicant's arguments are still unpersuasive.

As an initial matter of discussion, the examiner wishes to reproduce herein what the

MPEP 2112 Requirements of Rejection Based on Inherency; Burden of Proof establishes:

A) "ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE

SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE

*EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW INHERENCY,
THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBlOUS DIFFERENCE'*

B) “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on *prima facie obviousness*’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

C) Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie case of either anticipation or obviousness has been established*. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product*. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

D) “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior

art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

E) “[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art’s functioning, does not render the old composition patentably new to the discoverer.” Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999).”

In light of the above, the examiner rejected the present claims as being anticipated based on inherency by the cited prior art. The examiner met the requirement of establishing inherency as all of electrodes of the prior art have substantially the same composition as the electrode claimed by the appellant. The ONLY difference between the prior art and appellant’s invention is that the prior art does not expressly disclose the amorphousness of its electrode composition. Then, at a minimum, as clearly stated in MPEP 2112, “*ONCE A REFERENCE TEACHING PRODUCT APPEARING TO BE SUBSTANTIALLY IDENTICAL IS MADE THE BASIS OF A REJECTION, AND THE EXAMINER PRESENTS EVIDENCE OR REASONING TENDING TO SHOW INHERENCY, THE BURDEN SHIFTS TO THE APPLICANT TO SHOW AN UNOBLVIOUS DIFFERENCE*”. But Appellant has stayed away from the burden of proof; and has preferred to argue that the references either do not disclose the method/process of manufacturing their respective electrode (thus, it is impossible to compare the structure of the final electrode product), or that they do not explicitly disclose their electrode composition is amorphous. To date, no objective or sound evidence has been provided by the Appellant to satisfactorily overcome the above inherency (burden of proof) requirement. Therefore, the present claims remain rejected under the cited prior art.

(repeated [sic] for emphasis only) “[T]he PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency’ under 35 U.S.C. 102, on prima facie obviousness’ under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted].” The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

In the remarks, appellants “re-asserts the arguments made in the amendment filed 07/20/06 and direct the Examiner’s attention to MPEP 2112 (IV)...”. Accordingly, the examiner also re-asserts the position taken in the Office Action dated 08/17/06. Nothing is new in appellant’s reply. Simply, appellant has decided to challenge the examiner’s position without providing objective, scientific or sound evidence to demonstrate that the composition/material of the prior art is not non-crystalline or does possess a crystalline structure or is not amorphous. Accordingly, the examiner also asserts that it is not enough that appellant’s representative personally believes that the prior art’s composition/material does have a crystalline structure. That is to say, the arguments of counsel cannot take the place of evidence in the record. An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of inherent anticipation (See MPEP 716.01 and 2145: *Consideration of Appellant’s Rebuttal Arguments*). That is to say, a statement or argument by the attorney is not factual evidence. (See MPEP 716.01 and 2145 *Consideration of Appellant’s Rebuttal Arguments*).

Interestingly, appellant argues that because “*the cited reference provide few, if any details, regarding the manufacture of the alloys described therein....there is no basis for asserting that the prior art alloys inherently were identical to the claimed alloys in the absence of sufficient information regarding how they were manufacture*” . Therefore, the present application must be allowed; or as phrased by the appellant “*the rejection must be withdrawn*”. In other words, let’s forget the teachings and applicability of the prior art because it does not sufficiently describe the manufacturing technique of the material/composition. Thus, it is conveniently and fully irrelevant to the claimed invention. And as such, case is closed. Stated alternatively, appellant does not care about the impact of allowing a patent application claiming substantially the same subject matter as the prior art because the prior art does not disclose how its composition/material is prepared so as to positively imply how crystalline or non-crystalline (amorphous) the structure of the composition/material is. Because of that and necessarily, the technique employed by the prior art to make the composition/material produces a crystalline structure at all. That is very interesting. The examiner finds himself in complete disagreement with appellant’s position. The examiner does care about potential infringement issues or allowing an electrode composition over the teachings of the prior art of record when there is no sufficient and clear information to evidence non-anticipation or non-obviousness with respect to the disclosed subject matter. Assuming arguendo that there is no description on how the composition/material of the prior art was prepared, then the examiner contends that there is a substantially degree of probability that the process of making the composition/material of the prior art can produce a composition/material exhibiting a non-crystalline structure.

To support this, the examiner reminds appellant the following appellant's assertion: "*The reason the appellants discussed the lack of disclosure regarding how the prior art alloys were made is because it is well-known in the field of materials science that the manufacturing method affects whether the resulting composition is amorphous or crystalline. Because the cited references do not disclose sufficient details regarding how the alloys disclosed therein were prepared, it is impossible to determine whether or not the alloys were inherently amorphous*"

(See the 10/10/06 amendment on page 3, 1st full paragraph). Currently, appellant is not completely sure or 100 % confident that the prior art of record does not disclose amorphous material but appellant is asking the examiner to overlook that and pass the application to issue or allow the present application or withdraw the rejection (as phrased by the appellant "*the rejection must be withdrawn*"). Don't you think that if it is impossible to determine whether or not the alloys are inherently amorphous, then, there is a reasonable certainty or expectation to believe the alloy disclosed in the prior art might in fact be amorphous. Other than asking to forget about the teachings of the prior art and to pass the application to issue, appellant has also failed to provide objective evidence to better support that the *prima-facie* inherent anticipation rejection is improper. Appellant is reminded that it is the Examiner's duty and/or responsibility to set the record straight, to clarify uncertainties or any cloudy issues, and to evaluate substantiated evidence in order to make a determination affecting the patentability of claimed subject matter, and ultimately, affecting and impacting the public. The examiner would be very irresponsible if an application containing such a degree of ambiguity and/or uncertainty, like the present application, is passed to issue. If appellant believes that it is more convenient to allow the present application in view of the impossibility of determining crystallinity or amorphousness of the

disclosed material/composition, appellant then would be disappointed to learn the examiner does not share appellant's doctrine or vision. The examiner does not agree with appellant's assertion that under these circumstances, the doctrine of anticipation by inherency does not apply.

Without losing the scope of the Examiner's response to appellant's argument, the examiner clarifies herein the basis for rejecting the claims based on inherency as appellant appears to have misconstrued the inherency case. The Examiner's main contention for advancing the inherency rejection is based on two different reasoned analysis. First one, as previously stated in the prior office action, "*products of identical chemical composition can not have mutually exclusive properties*". Second and more importantly, as admitted by the appellant, "*it is well known in the field of materials science that the manufacturing method affects whether the resulting composition is amorphous or crystalline*" (See 10/10/06 amendment on page 3, 1st full paragraph) and "*it is textbook materials science that the manufacturing method influences the microstructure and properties of alloy*" (See 10/10/06 amendment on page 4, sole full paragraph). Therefore, since the manufacturing method might affect the final (or lack of) structure of the manufactured material, it is very difficult for the examiner to make a clear determination about the crystallinity and/or amorphousness of the material/composition disclosed in the prior art. The greatest uncertainty in this case is whether or not the JP'112, the JP'221 and the WO'532 do inherently teach the "amorphousness" of their materials. Now, it would have been easier to resolve this issue if the novelty of appellant's invention relied upon the concept that most of the manufacturing methods for making the claimed composition would necessarily produce a crystalline product, and therefore, appellant's amorphous product is novel because of its amorphousness or lack of crystalline structure. But such is not the present case.

What appellant is arguing is that none of the JP'112, the JP'221 and the WO'532 inherently teach or disclose an amorphous material because they are silent about respective methods of manufacturing their composition/material. Therefore, lack of disclosure about manufacturing method of a material/composition is equivalent to assume or presume that such a material/composition is crystalline. But simultaneously, appellant admits on record that "*the manufacturing method affects whether the resulting composition is amorphous or crystalline*". In the absence of additional information provided by the appellant to otherwise support non-inherency, it is very difficult for the examiner to side with appellant on this issue. The fence is so far away on the opposite side that jumping into appellant's side is just extremely harmful. It is non-sense to believe or assume that the three (3) references used to set forth respective prima-facie cases of inherent anticipation (i.e. the JP'112, the JP'221 and the WO'532) do not inherently include a variation of the claimed composition in the form of amorphous material.

Three (3) different prima-facie cases of anticipation based upon inherency have been set forth by the examiner to support rejections under Section 102, and the only appellant's assertion, upon admitting that the manufacturing method affects whether the resulting composition is amorphous or crystalline, is that the JP'112, the JP'221 and the WO'532 do not inherently anticipate the claimed subject matter because they appear to be wholly silent about the manufacturing method which is usable to further determine crystallinity or amorphousness.

Unfortunately, the examiner cannot concur with appellant's assertion.

With respect to appellant's arguments that "*the classic example of this phenomenon is the case of graphite and diamond*", the examiner respectfully avers that, currently, we are not dealing with graphite or diamond. The issue under contention is whether the all-encompassing

limitations “*one electrochemically inactive elemental metal*” (which one? Indefinite) and “*at least one electrochemically active elemental metal*”(which one? Indefinite) can be taken as any given representative composition that behaves as set forth by the appellant. The answer is NO, because appellant’s classic example (i.e. graphite vs. diamond) calls for specific materials, compositions and crystalline microstructures, which are certainly quite different from appellant’s claimed amorphous material.

With respect to the JP’922, appellant has argued that such a reference “*provides no further disclosure regarding the microstructure of this alloy, nor does it provide sufficient details regarding the manufacture of this alloy*”. Therefore, “*it is impossible to determine whether these alloys are in the form of an amorphous mixture*”. In reply, the examiner contends that appellant bears the burden of proof in inherency rejections. “[T]he discovery of a previously unappreciated property of a prior art composition, or of a scientific explanation for the prior art’s functioning, does not render the old composition patentably new to the discoverer.” *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999). Thus the claiming of a new use, new function or unknown property which is inherently present in the prior art does not necessarily make the claim patentable. *In re Best*, 562 F.2d 1252, 1254, 195 USPQ 430, 433 (CCPA 1977). *In re Crish*, 393 F.3d 1253, 1258, 73 USPQ2d 1364,1368 (Fed. Cir. 2004). The PTO can require an appellant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product, *In re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). See MPEP 2112. This is equally applicable to the discussion of the JP’764 and the EP’359 concerning this matter.

As to appellant's arguments concerning "*the manufacture of the alloy*", it is noted that manufacture of the alloy is not at issue in the present application. Patentability of a product does not depend on method of making the same. Thus, such an argument adds nothing of significance to the patentability of a product as instantly claimed (i.e. an electrode composition). The same goes for the discussion of the JP'764 about this aspect.

Accordingly, the examiner also asserts that it is not enough that appellant's representative personally believes that the prior art does not disclose the "amorphous characteristic of the electrode composition. That is to say, the arguments of counsel cannot take the place of evidence in the record. An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a *prima facie* case of inherent anticipation/obviousness (See *MPEP 716.01 and 2145: Consideration of Appellant's Rebuttal Arguments*).

With respect to appellant's comments regarding the JP'112, the JP'221 and the WO'532, appellant has argued that the limitation "*consisting essentially of*" exclude compounds which may include certain forms of crystallinity. There is no dispute about the implication of the term "*consisting essentially of*", namely, the exclusion of additional materials by limiting the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristic(s) of the claimed invention. However, an interpretation of the literal claim scope reveals that appellant is not claiming that both the "*at least one electrochemically inactive elemental metal*" and the "*at least one electrochemically active elemental metal*" are in the form of an amorphous mixture. Present claim language only stipulates, indeed, that the "*at least one electrochemically active elemental metal*" consists essentially of a metal in the form of an

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amorphous mixture, but not both metals as apparently argued by the appellant. In other words, the “*consisting essentially of*” limitation does exclude the presence of crystalline regions or materials only for the “*at least one electrochemically active elemental metal*”, but not for the “*at least one electrochemically inactive elemental metal*”. The examiner has interpreted the claim language as such.

Concerning the EP’402 and the EP’359, it has been contended that “*It describes using a conventional casting protocol to produce the alloys. Such a method would not produce an amorphous alloy...*” (the EP’402) or “*an annealing step characteristic of processes that produce crystalline material*” (the EP’359). However, in the absence of objective evidence demonstrating the validity and technical accuracy of such contention, the foregoing argument has little merit and fails to provide patentable distinction over that prior art reference. A statement or argument by the attorney is not factual evidence. (See *MPEP 716.01 and 2145 Consideration of Appellant’s Rebuttal Arguments*).

With respect to the double patenting rejection, appellant did state that “*upon allowance of claims 1 and 3-10, applicants will submit a terminal disclaimer*” (refer to the 07/19/06 amendment at page 5, lines 6-8). Therefore, even though appellant left unattended the double patenting rejection it appears that appellant acquiesces the validity of the double patenting rejection as the terminal disclaimer will be submitted at a later time.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Raymond Alejandro



Conferees:

Pat Ryan

William Krynski

